

## BURMESE ANTS COLLECTED BY PROFESSOR G. E. GATES.

BY WILLIAM MORTON WHEELER.

In 1923 Professor Gordon E. Gates of Judson College, Rangoon, Burma, sent me a small but interesting series of Formicidæ which he collected in that locality. Most of the forms are well-known and widely distributed in the Indomalayan Region, but the collection includes a new species of *Aphænogaster* and a new variety of *Ænictus binghami* Forel.

## DORYLINÆ.

*Dorylus (Typhlopone) orientalis* Shuckard. A few soldiers and workers.

*Ænictus binghami* Forel var. *gatesi* var. nov.

*Worker.* Differing from the typical form of the species in having the pronotum entirely opaque and densely punctate like the remainder of the thorax. The petiole is also more coarsely punctate, more opaque and darker in color.

Numerous specimens from a single colony.

## PONERINÆ.

*Odontoponera transversa* F. Smith. Several workers and a winged female.

*Diacamma scalpratum* F. Smith. Numerous workers.

*Diacamma rugosum* Le Guill. subsp. *vagans* F. Smith. var. *birmanum* Emery. Numerous workers.

*Bothroponera bispinosa* F. Smith. A few workers.

*Ectomomyrmex astutus* F. Smith. A few workers.

*Euponera (Brachyponera) luteipes* Mayr. Several workers.

*Leptogenys (Lobopelta) diminuta* F. Smith. A single worker.

*Leptogenys (Lobopelta) kitteli* Mayr. Several workers.

## PSEUDOMYRMINÆ.

*Sima rufonigra* Jerdon. Several workers.

*Tetraponera binghami* Forel. A few workers.

*Tetraponera allaborans* Walker. A few workers.

## MYRMICINÆ.

**Aphænogaster** (*Deromyrma*) **feæ** Emery.

*Female* (undescribed). Length 6.5-7 mm.

Resembling the worker. Cheeks with two parallel carinæ, instead of one, forming the external border of the antennal fovea. Mesonotum not overarching the pronotum, convex, as broad as long. Epinotum sloping, the base twice as long as the declivity, feebly concave, the spines stout, fully twice as long as their basal diameter, as long as the declivity, directed upward and backward. Petiole and postpetiole as in the worker, but their nodes higher and stouter. Gaster more voluminous than the thorax.

Sculpture, pilosity and color as in the worker, but the base of the epinotum coarsely and regularly, transversely rugose, the petiolar node transversely rugulose. Wings long, their membranes uniformly brownish, their veins and pterostigma darker brown.

*Male* (undescribed). Length 4.5 mm.

Head resembling that of the worker but shorter, the portion behind the prominent eyes less convex and narrowing more rapidly to the collar. Mandibles with a sharp apical tooth and five or six subequal basal denticles. Cheeks short and straight, without carinæ. Clypeus convex, its anterior border rounded and entire. Antennal scapes reaching a little beyond the posterior ocelli; funiculi slender, first joint longer than broad and distinctly thicker than the succeeding joints. Mesonotum strongly overarching the very short pronotum, very convex in front; epinotum long, the base long and sloping, strongly concave in front, horizontal and feebly convex behind, without spines or teeth, but with a distinct angle on each side where it passes into the very short declivity. Petiole and postpetiole as in the worker, but the nodes lower and that of the petiole more angular in profile.

Sculpture and color as in the worker and female, very smooth and shining, but the base of the epinotum and upper surface of petiolar node without rugæ. Hairs sparser, more

delicate and pointed than in the female and worker. Wings slightly paler than in the female.

Eleven workers, two females and four males from a single colony.

**Aphænogaster** (*Attomyrma*) **gatesi** sp. nov.

*Worker.* Length nearly 4 mm.

Head subrectangular, fully as broad as long, a little broader behind than in front, with straight, transverse posterior border and evenly rounded sides. Mandibles large, rather flat, with scarcely concave external borders, the teeth, except the apical, small, numerous and irregular. Clypeus broad, somewhat depressed anteriorly, the border entire, broadly and evenly rounded. Frontal area large, distinct and triangular. Frontal carinae subparallel, nearly as far apart as their distance from the sides of the head. Eyes rather small, at the middle of the sides of the head. Antennae moderately stout, scapes slightly flattened at the base, extending nearly half their length beyond the posterior corners of the head; funiculi with distinctly 4-jointed club; joints 2-7 subequal, about  $1\frac{1}{2}$  times as long as broad, basal joint nearly twice as long as broad. Thorax moderately stout but much narrower than the head, broadest through the pronotum which is subhemispherical, as broad as long. Promesonotal suture distinct and somewhat impressed; mesonotum narrow, sloping, with an abrupt angular projection on the middle and a lower angular projection at its posterior end near the mesoëpinotal suture. Mesoëpinotal constriction pronounced; base of epinotum straight and horizontal in profile, from above with a median longitudinal impression; declivity sloping, somewhat shorter than the base from which it is separated by a pair of small erect teeth which are as broad at the base as long. Petiole narrow, about twice as long as broad, laterally compressed, violin-shaped from above; the node rather small and conical. Postpetiole fully three times as broad as the petiole, as broad as long, broader behind than in front, the node in profile low and rounded, not as high as the petiolar node. Legs moderately long, femora distinctly thickened in the middle.

Shining: mandibles finely striate and sparsely punctate; clypeus with five widely separated longitudinal rugæ; cheeks and sides of head sharply but not densely longitudinally rugose; antennal foveæ with a few concentric rugæ; remainder of head and pronotum with scattered piligerous punctures; meso- and epinotum densely punctate-reticulate, but not opaque; nodes of petiole and postpetiole faintly longitudinally striate above; gaster and legs with scattered piligerous punctures.

Hairs yellowish, rather long, coarse but not obtuse, erect or suberect, both on the body and appendages, conspicuous on the scapes and legs.

Piceous brown; mandibles, funiculi, legs, borders of gastric segments and sutures of thorax and pedicel, except the nodes, paler and more reddish.

Described from four specimens.

This species is related to *A. smythiesi* Forel from the north-west Himalayas, but differs in the shape of the head and of the mesonotum, the angular projection of which is much further back in *gatesi*, the greater width of the postpetiole, very different sculpture of the head and epinotum, coarser, longer and more erect hairs on the appendages, etc.

*Pheidole sulcaticeps* Roger subsp. *yeënsis* Forel. Numerous soldiers and workers.

*Pheidole malinsi* Forel. Soldiers, workers and males.

*Myrmicaria brunnea* Saunders. Several workers.

*Crematogaster dohrni* Mayr. subsp. *rogenhoferi* Mayr. Workers and a deälated female.

*Crematogaster hodgsoni* Forel. Several workers.

*Crematogaster rothneyi* Mayr. Two workers.

*Crematogaster (Oxygyne) travancorensis* Forel. Several workers.

*Solenopsis geminata* Fabr. subsp. *rufa* Jerdon. Workers and females.

*Pheidologeton affinis* Jerdon. Soldiers, intermediates and workers.

*Pheidologeton diversus* Jerdon. Soldiers, intermediates and workers.

*Carebara lignata* Westwood. Two deälated females.

*Meranoplus bicolor* Guérin var. *lucidus* Forel. Three workers.

## DOLICHODERINÆ.

*Dolichoderus* (*Hypoclinea*) *bituberculatus* Mayr. Three workers.

*Dolichoderus* (*Hypoclinea*) *affinis* Emery var. *glabripes* Forel.

Numerous workers, a deãlated female and four males.

*Dolichoderus* (*Hypoclinea*) *taprobanæ* F. Smith. Several workers and a deãlated female.

*Technomyrmex albipes* F. Smith. Five workers.

## FORMICINÆ.

*Anoplolepis longipes* Jerdon. Numerous workers.

*Plagiolepis* (*Anacantholepis*) *rothneyi* Forel. A single worker.

*Ecophylla smaragdina* Fabr. Numerous workers and a deãlated female.

*Camponotus* (*Tanæmyrmex*) *variegatus* F. Smith var. *dulcis* Emery. Numerous workers and four females.

*Camponotus* (*Myrmosericus*) *rufoglaucus* Jerdon subsp. *paria* Emery. Numerous workers.

*Camponotus* (*Myrmosaulus*) *singularis* F. Smith. A single worker.

*Camponotus* (*Colobopsis*) *leonardi* Emery. Several workers.

*Polyrhachis* (*Myrma*) *proxima* Roger. Three workers.

*Polyrhachis* (*Cyrtomyrma*) *rastellata* Latreille. Five workers.

*Paratrechina* (*Nylanderia*) *birmana* Forel. A single worker.